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THE INSECT PEST SURVEY BULLETIN.

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BUREAU OF ENTOMOLOGY
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AND
THE STATE ENTOMOLOGICAL
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OUTSTANDING ENTOMOLOGICAL FEATURES OF SEPTEMBER, 1921

The season of insect activity in many of the States is now rapidly drawing to a close. In view of this fact we think it advisable to discontinue the Monthly Bulletins for the months of November, December and January. The seventh number, to be issued November 1, therefore, will be the last for the calendar year 1921. During the winter months we will issue the annual summary of entomological conditions throughout the United States. We do not wish our collaborators, however, to understand that we do not wish to receive entomological notes during these months. All observations on entomological conditions should be reported as heretofore and these features of the winter months will be written up in the February number. The unusual conditions in the South will be handled with special reports and telegraphic announcements.

During the past month recent rains reduced the ravages of the second brood of the chinch bug in Indiana and Illinois. This brood is heavy enough in Kansas to necessitate a control campaign being put on this winter. In Mississippi this pest is epidemic, the outbreak now underway being the most serious in the past 10 years.

The corn earworm is reported as being unusually abundant in Connecticut, New York, Delaware, Maryland, Indiana, Illinois, Michigan and Wisconsin.

The fall army worm arrived in northern Indiana late this month. In Kentucky this pest is doing serious damage at the present time. The true army worm has just put in its appearance in Kansas, where it is attacking late corn.

A hearing is to be held early next month before the Federal Horticultural Board to consider quarantine measures for the new territory infested by the European corn borer.

The blue-grass billbug is appearing in unprecedented numbers in parts of Iowa. It is so badly infesting blue-grass that the dead sod can be rolled up like carpet.

The alfalfa webworm is destroying many acres of alfalfa in east-central Kansas.

The codling moth, throughout the country, seems to be much more destructively abundant than usual. This may be partly accounted for by the concentration of the worms in the relatively small crop occasioned in many sections by late spring frosts. The unusual severity of plum curculio damage is probably also to be similarly accounted for.

The silver leaf mite is recorded for the first time as a pest in Pennsylvania.

The boll weevil has been discovered on the Island of San Salvador since the last issue of this Bulletin. In North Carolina the new area invaded by this pest this year is already as wide as the entire area invaded last year and the migrating season is only half over. It has been found 40 and 50 miles north of the limit of migration of last year in many places.

The cotton worm is very severe in parts of Louisiana, completely defoliating all the cotton in the vicinity of Alexandria and much from there to Opelousas. A late report has been received of heavy infestation about College Station, Texas. These outbreaks are so late, however, that they will probably have little effect upon the cotton crop.

Wireworms of the genus Phelates are estimated to be destroying potatoes valued at \$250,000 in the Yakima Valley region of Washington.

The imported cabbage worm and the cabbage looper are very seriously infesting cabbages in many of the middle Atlantic States.

The sweet-potato white fly is doing serious damage to sweet potatoes and beans in Florida.

The melon aphid has been extremely injurious to cantaloupes in the Imperial Valley of California. This pest has also been very destructive in Nebraska, Indiana, and Maryland, and has appeared for the first time in many years as a serious pest in Ohio.

One of the events of the month has been the very successful use of the aeroplane in distributing arsenicals in tall trees infested with leaf-feeding insects. At Troy, Ohio, a 6-acre grove of catalpas over 30 feet tall was treated in 54 seconds, the application being thorough enough to destroy 99 per cent of the catalpa sphinx caterpillars infesting the grove.

CEREAL AND FORAGE-CROP INSECTS

WHEAT

HESSIAN FLY (Phytophaga destructor Say.)

- Indiana J. J. Davis (September 14). "The Hessian fly situation is unchanged. The farmers are urged to delay sowing until after the "fly-free" dates and, from the inquiries received and the general sentiment throughout the State, universal adoption of this practice this year is anticipated!"
- Illinois W. P. Flint (September 19). "Recent surveys show flaxseeds slightly less abundant than usual; except in a few of the mid-western counties. Here there is a moderately heavy infestation. A little more than 50 per cent of the flaxseeds are parasitized. No indication of second or supplementary fall brood."
- Nebraska M. H. Swenk (September 15). "The distribution of the Hessian fly seems to be very local as to menacing abundance. The pest did not increase in numbers during the summer to the extent that was threatened earlier in the season. Nevertheless many farmers are sowing late to avoid possible injury by this insect."
- Kansas E. G. Kelly (September 22). "Our summer survey indicated a very light infestation in east Kansas. Rains throughout the State in August and early September produced a good crop of volunteer wheat. The volunteer wheat, however, is very little infested."

FALSE WIREWORM (Eleodes spp.)

- Kansas E. G. Kelly (September 22). "The larvae of this insect are doing considerable damage to early sown wheat in some of the western counties!"

CORN

CHINCH BUG (Blissus leucopterus Say)

- Indiana J. J. Davis (September 14). "The chinch bug is probably the most conspicuous and most talked of pest in Indiana. Following the summer flight of matured bugs it dropped out of sight, so far as the farmer was concerned, but they are again reporting a great abundance of the bugs in corn, not only where it was observed last summer but in many new localities. The heavy rains, no doubt, destroyed large numbers of the bugs but the check was not sufficient to control the pests. Corn has been badly damaged by the second brood of bugs in some localities, although this second-brood injury is not as widespread as anticipated because the corn was sufficiently advanced to overcome a considerable amount of injury and the heavy rains apparently have assisted."

- Illinois W. P. Flint (September 19). "Chinch bugs in Illinois have received some setback from recent rains."
- Kansas E. G. Kelly (September 22). "The chinch bug came forward in late summer and did some damage to corn in northeast counties of Kansas. We have enough to necessitate a campaign of control this winter."
- Mississippi R. W. Harned (September 10). "The chinch bug is probably more numerous in Mississippi at the present time than at any time during the past 10 years. Yesterday Dr. Carl J. Drake and Mr. H. W. Allen investigated a serious complaint in regard to these insects in Lowndes County. They state that they have never seen chinch bugs more numerous. The ground was literally covered with them and in a field of sorghum hundreds of nymphs and adults were on almost every plant."

CORN EARWORM (Chloridea obsoleta Fab.)

- Connecticut W. E. Britton (September 27). "This insect is being reported generally on late maturing sweet corn and field corn from many parts of the State."
- New York E. P. Felt (September 21). "Mr. R. E. Horsey reports that the corn earworm has been somewhat injurious to corn in the vicinity of Rochester."
- C. R. Crosby and assistants report that this insect is very abundant and destructive in Madison County; serious in Orleans, Cayuga, Livingston, and Allegany Counties; and fairly destructive in Monroe, Wyoming, Orange, and Yates Counties. It has also been reported as doing some damage in Chautauqua and Chemung Counties.
- Delaware C. O. Houghton (September 7). "This pest is more abundant than usual in the vicinity of Newark."
- Maryland J. A. Hyslop, Bureau of Entomology (September 24). "This insect is much more numerous than it has been for the past three years in the eastern part of Montgomery County, over 90 per cent of the sweet corn and much of the field corn being infested."
- Indiana J. J. Davis (September 14). "The corn earworm seems to be more general this year than usual, judging from the many reports received."
- Illinois W. P. Flint (September 19). "The corn earworm has destroyed 5 per cent of the crop to date."
- Michigan R. H. Pettit. "Very abundant throughout the State. Damage ranging from 10 to 75 per cent of the crop."
- Wisconsin S. B. Fracker (September 23). "Many complaints are being received this year. Serious losses from this insect are uncommon in this State."

FALL ARMY WORM (Laphygma frugiperda S. & A.)

Indiana

J. J. Davis (SPECIAL TELEGRAPHIC REPORT SEPT. 20). "Fall army worm first observed in northern Indiana on September 20 attacking alfalfa." The outbreaks reported from Laporte and Bedford.

Kentucky

H. Garman (September 21). "The fall army worm has recently made its appearance in Kentucky and has, for a couple of weeks, been doing some severe mischief in Carroll County on the Ohio River to corn, riddling the expanded blades and working like a corn earworm in the rolled blades of late-planted corn. In Washington County, farther south, it is destroying vegetation of all sorts."

ARMY WORM (Cirphis unipuncta Haw.)

Kansas

E. G. Kelly (September 22). "This species has made its presence known in two localities in McPherson County on late corn."

STALK BORER (Papaipema nitela Guen.)

Indiana

J. J. Davis (September 14). "The stalk borer is still being reported, the reports for the past month relating to its occurrence in corn in the large basal portions of the stalk."

EUROPEAN CORN BORER (Pyrausta nubilalis Hubn.)

W. R. Walton, Bureau of Entomology. "Infestation in Ohio now extends from the Pennsylvania State line along the shore of Lake Erie almost continuously to Toledo. Infestation in the Province of Ontario, Canada, is very much more extensive and severe than anywhere in the United States, one record extending as far west as the shore of Lake Ontario. A hearing is to be held before the Federal Horticultural Board on October 11 to consider quarantine measures for the newly infested territory."

BUMBLE FLOWER BEETLE (Euphoria inda L.)

New York

C. R. Crosby (August 30). "Injuring the ears of corn about Rochester. Much worse on the outside of fields."

M. D. Leonard (August 30). "Damage reported from Honeoye Falls, Monroe County. The beetles are reported as working through the husks and eating the kernels of the best ears."

E. P. Felt (September 21). "Bumble flower beetle has been somewhat abundant and injurious in both Rensselaer and Essex Counties."

Delaware

C. O. Houghton (Late August). "Reported as doing some damage about Stanton."

COTTON CUTWORM (Prodenia ornithogalli Guen.)

Illinois W. P. Flint (September 19). "Occurring in moderate numbers about Urbana."

Priocnus sp.,

Illinois W. P. Flint (September 19). "An undetermined Priocnus is doing severe damage about Urbana."

CORN LANTERN FLY (Peregrinus maidis Ashm.)

Mississippi R. W. Harned (September 10). "The corn lantern fly is causing serious damage in some cornfields in southern Mississippi."

COWPEAS

BELTED CUCUMBER BEETLE (Diabrotica balteata LeC.)

Mississippi R. W. Harned (September 10). "The banded Diabrotica is again causing serious loss to beans in southern Mississippi. This beetle apparently reached Mississippi some time during the past 8 or 10 years. It had never been noticed before that time, but for the past 5 years it has attracted as much attention as any of the Diabroticas. The complaints in regard to this insect have been largely from growers of beans, dahlias, and cucurbits."

Louisiana T. H. Jones (September 10). "Beetles have been unusually abundant lately on cowpeas, beans, Irish potatoes, squash, and other plants at Baton Rouge. Cowpeas have been badly eaten in Louisiana this year, principally by Cerotoma trifurcata, but Diabrotica balteata adults have been responsible for some of the injury."

(September 20). "At the request of the county agent of Rapides Parish, I spent yesterday in investigating the damage done by this beetle in the vicinity of Alexandria. We found the beetles abundant on various crops but they were attracting special attention because of the injury being done to Irish potatoes and cowpeas. This morning specimens were received from Oberlin with the information that the beetles were attracting attention in that section. In both sections mentioned, it appears to be the general impression that a new pest has put in its appearance. This would indicate that the species has not heretofore been abundant there, though specimens were taken near Alexandria by the writer as early as 1914. While the beetles have been locally abundant in the State in previous years, particularly in the fall of the year, it seems that this species is becoming more and more a serious pest."

BEAN LEAF-BEETLE (Cerotoma trifurcata Foerst.)

Louisiana T. H. Jones (September 10). "Cowpea foliage has been badly injured in Louisiana by insects this year, the damage being largely done by the adults of this species."

COWPEA CURCULIO (Chalcodermus seneus Boh.)

Georgia O. I. Snapp, Bureau of Entomology (September 12). "This curculio seems to be unusually abundant this year, and severely damaging the cowpea crop in central Georgia. Several farmers report one fourth to one half of the crop destroyed. Many pods cut off at the place of attachment to the vine. The weather has been hot and dry for the past three weeks.

LESSER CORN STALK-BORER (Elasmopalpus lignosellus Zell.)

Mississippi R. W. Harned (September 10). "The lesser corn stalk-borer continues to partially destroy stands of late cowpeas by tunneling the main stem and root. Small plants about 6 or 8 inches high are being attacked."

GREEN CLOVER WORM (Plathypena scabra Fab.)

Indiana J. J. Davis (September 14). "The green clover worm has been damaging soybeans and cowpeas in some sections."

VELVET BEAN

VELVET BEAN CATERPILLAR (Anticarsia gemmatilis Hubn.)

Florida J. R. Watson (September 15). "Doing some serious damage in a few localities in northern Florida but, on the whole, less serious than in average years. Parasites will probably appear within the next few weeks."

BLUE-GRASS

BLUE-GRASS BILLBUG (Sphenophorus parvulus Gyll.)

Iowa C. N. Ainslie, Bureau of Entomology (September 22). "It may be of interest to you to know that this insect seems to be multiplying at a great rate in this region, or at least in this vicinity. A few weeks ago the foreman of one of our cemeteries appealed to me for help. The sod was dying and could be rolled up like a carpet. I found a good many full-grown Lachnosterna larvae at work, but along with these were a great number of the larvae of S. parvulus. Recently the adults have appeared in unprecedented numbers in my part of the city. Not many days ago I took adults from the walk between the Laboratory and my house, going back and forth three or four times. I have since taken them here and there from the walks, where the walks were bounded by bluegrass lawns, no grass with stems anywhere near, so I am sure they are living on the grass roots." (Sioux City, Iowa.)

GENERAL FEEDERS

GRASSHOPPERS (Acridiidae)

Wisconsin S. B. Fracker (September 22). "Damage to field crops ceased in August and these insects are now doing considerable damage to cabbage."

Nebraska M. H. Swenk (September 15). "Grasshoppers continue to be present in supernormal numbers in a number of the eastern Nebraska counties, especially in Nemaha County and along the Missouri River."

WHITE GRUBS (Phyllophaga spp.)

Indiana J. J. Davis (September 14). "White grubs are more abundant this year than for many years. They are reported as especially injurious to corn, strawberry, golf fair greens, and sod pastures."

Illinois W. P. Flint (September 19). "A serious outbreak throughout the northern two-thirds of the State."

Wisconsin S. B. Fracker, (September 23). "Serious on small fruit; hardly as injurious to corn as anticipated."

Kansas E. G. Kelly (September 22). "We expected considerable damage from white grubs this year but it did not occur except in three of the northeastern counties where slight damage was done to corn."

TRUCK - CROP INSECTS

GENERAL FEEDERS

WIREWORMS (Phaeletes sp.)

Washington M. C. Lane (Bureau of Entomology). "In the company of Chief Horticultural Inspector W. L. Close, I spent the 18th of July in visiting as many farms as possible around Outlook and Sny-side, Washington, where the damage to potatoes was reported worst last fall. Wireworms were easily found tunneling at this time in the half-grown potatoes and also in the stems of the plants below the surface. They were also found working near tops of half-grown sugar beets and severing the simple roots of the small rutabagas. Many were found feeding at the crowns of a succulent water grass common in the fields. On talking with several prominent farmers of this district, one having lived there for 29 years, I gathered that the wireworms have gradually become worse in the last 6 or 7 years, attacking corn, potatoes, and sugar beets mostly. The opinion here was that alfalfa was not attacked to any great extent and that fields of recently plowed alfalfa did not become badly infested with wireworms for at least two or three years. Later I found a badly infested field of potatoes that had been in alfalfa last year and for a long time previously. There is no doubt but that the wireworms are becoming more numerous and injuring the above-mentioned crops to a great extent in their early growth, but the main source of loss in the opinion of all talked with, is the lowering of the grade of the potatoes at market time, due to the tunnels of the wireworms. This is a very material loss and affects the growers directly. The estimated crop of this year will sell at very nearly \$1,000,000. Mr. Zundel, pathologist of the Washington State College, estimates that the loss occasioned by wireworms and disease this year will amount to nearly \$250,000 in the Yakima Valley. He has been over the Indian Reservation around Wapato and reports the same conditions as I found around Sny-side."

BLISTER BEETLES (Epicauta spp.)

Mississippi R. W. Harned (September 10). "Blister beetles still continue to attract attention by their abundance on various kinds of crops throughout Mississippi."

FIRE ANT (Solenopsis geminata Fab.)

Louisiana T. H. Jones (September 10). "Specimens of this ant were received on September 7 from a correspondent at Burtville, with report that they were carrying away garden seed after these had been planted. This species is quite commonly complained of as causing such damage and also girdling young vegetable plants at the surface of the ground."

POTATO

COLORADO POTATO BEETLE (Leptinotarsa decemlineata Say)

Wisconsin S. B. Fracker (September 23). "Overran potato fields, gardens, sidewalks, and houses in northern counties."

POTATO FLEA-BEETLE (Epitrix cucumeris Harr.)

- Maine R. J. Haskell, Plant Disease Survey (September 10). "Mr. W. J. Morse reports that flea-beetles have done considerable damage throughout central and southern Maine except where the potatoes had been very thoroughly sprayed."
- Vermont R. J. Haskell, Plant Disease Survey (September 10). "These insects have also done serious damage in northern and central Vermont."
- New Hampshire R. J. Haskell, Plant Disease Survey (September 10). "They are also reported as having done considerable damage in northern and central New Hampshire."
- New York O. C. Boyd (September 2). "These beetles are very numerous at the present time at Southampton."

POTATO APHIS (Macrosiphum solanifolii Ashm.)

- New York C. R. Crosby and assistants report that during the past week in September these insects were quite common in several fields about Nichols in Tioga County. One grower included 40 percent nicotine sulphate in his spray on a 30-acre patch. A few are still present about Southampton, in Suffolk County.

APPLE LEAFHOPPER (Empoasca mali LeB.)

- New York C. R. Crosby and assistants report that these insects are still quite common in Tioga, Suffolk, and Schuyler Counties.
- Wisconsin S. B. Fracker (September 23). "Killed Green Mountain variety except where sprayed and resulted in more serious burn on Rural New Yorker than ever before in northern part of State."

NORTHERN MOLE CRICKET (Gryllotalpa borealis Burm.)

- Massachusetts A. I. Bourne (September 15). "Doing some damage to potatoes about Fairview."
- Nebraska M. H. Swenk (September 15). "During the middle and latter part of August a very unusual number of mole crickets were reported from various parts of the State."

CABBAGE

IMPORTED CABBAGE WORM (Pontia rapae L.)

- New York M. D. Leonard (September 3). "Quite common but not doing much damage in one 3-acre field at Watkins in Schuyler County."
- Delaware C. O. Houghton (September 15). "All stages of this species in small numbers are still to be found here."
- Maryland J. A. Hyslop (September 25). "Cabbage worm is more numerous this year than it has been for the past three years in the southeastern part of Montgomery County. Very late planted cabbage is being entirely defoliated."

Wisconsin S. B. Fracker (September 23). "Doing considerable damage in Monroe and Kewaunee Counties."

CABBAGE LOOPER (Autographa brassicae Riley)

Maryland J. A. Hyslop (September 25). "These insects are so numerous on late cabbage that in conjunction with the imported cabbage worm they are threatening the crop in the southeastern part of Montgomery County. They are also attacking kale and turnips."

New York W. E. Davis (September 26). "One 3-acre field at Auburn quite badly infested and several others less so. Larvae were first observed to be injurious about a week ago."

CABBAGE APHIS (Brevicoryne brassicae L.)

New York E. O. Merrill, Assistant County Agent, Erie County. "About 3 per cent of the crop is being damaged here, due to very dry weather. Many plants have gone down beyond recovery."

G. E. Smith (September 6). "Increasing in injurious numbers on many patches in Orleans County."

HARLEQUIN CABBAGE BUG (Murgantia histrionica Hahn.)

Indiana J. J. Davis (September 14). "Harlequin cabbage bug has been damaging cabbage in the southern end of Indiana."

TURNIPS

GARDEN WEBWORM (Loxostege similalis Guen.)

Maryland J. A. Hyslop (September 20). "These insects are destroying about 10 per cent of the late turnip plants in the southeastern part of Montgomery County. They seem to be worse where the turnips are drilled in, the larvae working along the drill rows."

STRAWBERRY

STRAWBERRY WEEVIL (Anthonomus signatus Say)

New York C. R. Crosby and assistants. The annual survey of the commercial strawberry crop indicates that this insect destroyed from 5 to 50 per cent of the crop in different parts of Columbia County.

WHITE GRUBS (Phyllophaga sp.)

Nebraska M. H. Swenk (September 15). "White grubs continue to do serious injury to blue-grass lawns and strawberry beds over most of eastern Nebraska. The great bulk of these insects are in the second year of their development."

STRAWBERRY LEAF-BEETLE (Paria canella Fab.)

Wisconsin S. B. Fracker (September 23). "Serious damage from both adults and larvae in the State's best small-fruit area, in the west-central part of the State. Mr. E. L. Chambers reports this outbreak as a record breaker."

ASPARAGUS

ASPARAGUS BEETLE (Crioceris asparagi L.)

Delaware C. O. Houghton. "All stages of this insect in small numbers may still be found on asparagus about Newark."

BEANS

BEAN APHIS (Aphis rumicis L.)

Maryland E. N. Cory (September 25). "This insect occurs in abnormal numbers and threatens late bean crop about Rhodesdale."

SWEET -POTATO WHITE FLY (Remisia inconspicua Quaint.)

Florida F. M. O' Byrne (August 26). "Destroyed a 30-acre field of sweet potatoes about Alachua and are now attacking a 10-acre field of beans across the road."

CUCUMBER

TWELVE-SPOTTED CUCUMBER BEETLE (Diabrotica 12-punctata Oliv.)

Massachusetts A. I. Bourne (September 20). "This insect appeared in the region about Amherst in great numbers. Was at about peak of its abundance during week of August 20-27, when it was nearly as numerous as the striped cucumber beetle. Early in the season this species had not been found occurring in any great numbers as compared with the striped cucumber beetle."

PICKLE WORM (Diaphania nitidalis Cram.)

Mississippi R. W. Harned (September 10). "The pickle worm has been reported to be injuring late cucumbers in southern Mississippi."

MELON

COTTON APHIS (Aphis gossypii Glov.)

Maryland E. N. Cory (September 25). "Extremely injurious to cantaloupes, melons, particularly honeydew, about Rhodesdale."

Indiana J. J. Davis (September 14). "The melon aphid has been unusually abundant and destructive this year, the majority of the reports coming in the past month and after the greatest injury has been done -- usually too late to spray for satisfactory results."

Ohio H. A. Gossard (August 24). "Mr. J. S. Houser reports that a grower of muskmelons near Coshocton, who has been in the business for the past 25 years, experienced this season the first injury from the melon aphid. The attack commenced late in July and the upper surface of the leaves was sprayed with nicotine sulphate. A few days later a second application was made to the underside of the leaves through the use of specially constructed spars, using Bordeaux in combination with the nicotine sulphate and soap. Not only were the aphids controlled, but the wilt disease which was at that time making serious inroads on the field and threatening the crop was completely checked and an excellent crop of melons is being harvested."

Nebraska M. H. Swenk (September 15). "Melon aphid continues to be injurious on cucumbers and melons in all parts of the State."

SQUASH

SQUASH BUG (Anasa tristis DeG.)

Massachusetts E. R. Farrar (September 14). "This insect is about twice as abundant as usual at Lincoln. For the past few days we have found from 6 to 8 a day under shingles laid at the side of hills."

Indiana J. J. Davis (September 14). "The squash bug has been reported as very numerous in several localities."

SQUASH LADY-BEETLE (Epilachna borealis Fab.)

Delaware C. O. Houghton. "Adults still feeding on squash in small numbers about Newark."

ONION

PURSLEY SAWFLY (Storictiphora zabriskiei Ashm.)

Indiana J. J. Davis (September 14). "The pursley sawfly was reported from LaPorte as very abundant. It completely destroyed the pursley weed in a 10-acre field of onions. Other onion fields in the locality were apparently not freed of this weed by this sawfly larva."

SWEET POTATO

SWEET-POTATO WHITE FLY (Bemisia inconspicua Quaint.)

Florida Jeff Chaffin (September 10). "Doing serious damage and in some instances completely destroying large plantings of sweet potatoes. Calls for assistance are coming in from all over the potato growing sections. The Plant Board is trying to combat the pest with various citrus white fly fungi, but so far have had little success."

FRUIT INSECTS

APPLE

GREEN APPLE APHIS (Aphis pomi DeG.)

New York C. R. Crosby and assistants. The annual surveys of Columbia and Genesee Counties indicate that the damage by this insect was very slight and difficult to estimate, not amounting to 1 per cent.

ROSY APPLE APHIS (Anuraphis roseus Baker)

New York C. R. Crosby and assistants. The annual surveys indicate the following percentages of the apple crop damaged by this insect: Albany County, 8 per cent; Columbia County, traces difficult to estimate; Orleans County, 6 per cent; Wayne County, 20 to 30 per cent, sometimes as high as 65 per cent, this pest being the most serious insect attacking apple in this county this year.

CODLING MOTH (Carpocapsa pomonella L.)

New York C. R. Crosby and assistants. The annual survey indicates the following percentages of damage to the apple crop in the several counties: Orleans County, 12 to 15 per cent of apples with real wormholes, 18 to 20 per cent with side stings; Nassau County, 15 per cent; Albany County, 10 per cent wormholes, 15 per cent side stings; Columbia County, 15 per cent wormholes, side stings 4 per cent; Genesee County, 4 per cent wormholes, side stings 2 per cent; Wayne County, wormholes 0.5 to 1 per cent, side stings 2 to 4.5 per cent.

Kansas E. G. Kelly (September 22). "Owing to the severe freeze of last April we have practically no apple crop in Kansas, except in two southern counties where we have about one-third of a crop. In these counties a very heavy infestation of codling moth occurred; especially a late brood which stung practically 90 per cent of the crop. There were enough apples in all other sections of Kansas to carry through a good crop of worms for next year."

LESSER APPLE WORM (Enarmonia prunivora Walsh)

Indiana J. J. Davis (September 14). "The lesser apple worm seems to be unusually abundant this year and even in some of our most thoroughly sprayed orchards it is numerous."

FRUIT-TREE LEAF-ROLLER (Archips argyrospila Walk.)

New York C. R. Crosby and assistants. The annual survey of the commercial apple crop indicates the following percentages of damage in the several counties: Orleans County, 5 per cent; Albany County, 7 per cent; Genesee County, 2 per cent; Wayne County, 0.05 per cent to 0.2 per cent; Columbia County, traces.

RED-BANDED LEAF-ROLLER (Eulia velutinana Walk.)

Pennsylvania S. W. Frost (September 27). "The red-banded leaf-roller is exceedingly abundant and causing serious late injury to the fruit."

APPLE AND THORN SKELETONIZER (Hemerophila pariana Clerck)

Connecticut W. E. Britton (September 20). "Injury attributed to this insect is being found on apple in nearly all sections of the State except along the northern boundary, where it has not yet been observed."

BUD MOTH (Tmetocera ocellana Schif.)

New York C. R. Crosby and assistants. The annual survey of the commercial apple crop indicates the following percentages of damage: Orleans County, 2 per cent; Albany County, 10 per cent; Genesee County, 1 per cent.

LEAF CRUMPLER (Mineola indigenella Zell.)

Nebraska M. H. Swenk (September 15). "In Douglass County a severe infestation by the leaf crumpler was found early in September."

APPLE TRUMPET LEAF-MINER (Tischeria malifoliella Clem.)

Delaware C. O. Houghton (September 17). "This insect has been doing some damage about Newark."

FALL WEBWORM (Hyphantria cunea Drury)

Maryland E. N. Cory (August 28). "The fall webworm is much more abundant on the eastern shore than I have ever seen it. Observations were made in Talbot, Caroline, and Worcester Counties."

RED-HUMPED APPLE CATERPILLAR (Schizura concinna S. & A.)

Indiana J. J. Davis (September 14). "The red-humped apple caterpillar on apple and rose has been the subject of a number of inquiries."

LEOPARD MOTH (Zeuzera pyrina L.)

New York E. P. Felt (September 21). "Mr. L. P. Husted reports that the leopard moth larvae in apple twigs were doing some damage in Orange County."

APPLE MAGGOT (Rhagoletis pomonella Walsh)

New York C. R. Crosby and assistants. The annual survey of the commercial apple crop indicates the following percentages of damage done by this insect: Nassau County, 20 per cent; Albany County, 18 per cent; Columbia County, 5 per cent; Wayne County, traces of damage.

Wisconsin S. B. Fracker (September 23). "This insect, normally rare in Wisconsin, was a serious factor in some localities in the central part of the State this year."

APPLE RED BUG (Heterocordylus malinus Reut.)

New York C. R. Crosby and assistants. The annual survey of the commercial apple crop indicates the following percentages of damage done by this insect: Orleans County, 4 per cent; Albany County, 12 per cent; Columbia County, 15 per cent; Genesee County, 1 per cent; Wayne County, 2 to 3.5 per cent.

APPLE LEAFHOPPER (Empoasca mali LeB.)

New York M. D. Leonard (September 6). "Some damage to foliage observed in several orchards in Orleans County."

Delaware C. O. Houghton (September 24). "More abundant than usual on apple this year."

Pennsylvania S. W. Frost (September 27). "Not very abundant on apple this year."

Ohio H. A. Gossard (August 24). "Mr. J. S. Houser reports that the leafhopper was observed to be more abundant on the dusted than on the liquid sprayed apples in northwestern Ohio."

ROSE LEAFHOPPER (Empoa rosae L.)

Pennsylvania S. W. Frost (September 27). "Serious in Washington County, partially defoliating the trees."

SAN JOSE SCALE (Aspidiotus perniciosus Comstock)

New York C. R. Crosby and assistants. The annual survey of the commercial apple crop indicates the following percentages of damage done by this insect: Orleans County, 1 per cent; Albany County, traces; Columbia County, traces; Wayne County, 0.5 per cent.

Kansas E. G. Kelly (September 22). "This insect has had a very favorable summer on account of the lack of spraying in some of the orchards. Unsprayed fruit where there are only a few apples on the trees, are covered with the scales and the trees are badly infested. Will probably need the dormant spray."

APPLE SEED CHALCID (Syntomaspis druparum Boh.)

Connecticut Philip Garman (August 23). "Characteristic injury and infested seeds observed at Cornwall and Milford. This insect has not been observed in other years in this State."

PLUM CURCULIO (Conotrachelus nenuphar Herbst)

Connecticut W. E. Britton (September 27). "At harvest, apples in all parts of the State show an unusually large amount of injury by this insect."

New York C. R. Crosby and assistants. The annual survey of the commercial apple crop indicates the following percentages of damage by this insect: Wayne County, 4 to 8 per cent; Orleans County, 0.5 per cent; Albany County, 14 per cent; Genesee County, 1 per cent; Chautauqua County, scarce.

Indiana J. J. Davis (September 14). "The plum curculio has been unusually severe in apple orchards."

BUMBLE FLOWER BEETLE (Euphoria inda L.)

Maine E. M. Patch (September 13). "The last few days the brown fruit chafer is reported to be holding high revels in the McIntosh apples while ignoring snow apples in an adjoining row."

PEAR

PEAR THRIPS (Taeniothrips inconsequens Uzel)

New York D. V. Rivenburgh. The annual survey of the commercial pear crop in Columbia County indicates damage by this insect to be from 1 to 4 per cent.

PEAR PSYLLA (Psylla pyricola Foerst.)

New York C. R. Crosby and assistants. The annual survey of the commercial pear crop indicates the following percentages of damage done by this insect: Orleans County, 25 per cent; Niagara County, 25 per cent direct injury, 50 per cent indirect injury; Columbia County, 15 to 20 per cent; Genesee County, 1 per cent; Wayne County, controlled in most orchards.

PEAR LEAF BLISTER MITE (Eriophyes pyri Pgst.)

New York C. R. Crosby. (September 6). "Leaves badly infested at Oneida in Madison County."

CODLING MOTH (Carpocapsa pomonella L.)

New York C. R. Crosby and assistants. The annual survey of the commercial pear crop indicates the following percentages of damage done by this insect: Orleans County, 8 to 10 per cent; Niagara County, 2 per cent; Albany County, 8 per cent; Columbia County, 0.5 per cent; Genesee County, 4 per cent; Wayne County, traces.

FRUIT-TREE LEAF-ROLLER (Archips argyrospila Walk.)

New York C. R. Crosby and assistants. The annual survey of the commercial pear crop indicates the following percentages of damage by this insect: Wayne County, 1 per cent; Orleans County, 5 per cent; Niagara County, 2 per cent; Albany County, 2 per cent; Genesee County, 2 per cent.

Lygus Communis Knight

New York C. R. Crosby and assistants. The annual survey of the commercial pear crop indicates the following percentages of damage done by this pest: Orleans County, 3 per cent; Genesee County, 6 per cent; Niagara County, 0.5 per cent; Columbia County, 5 per cent.

PEACH

PEACH BORER (Aegeria exitiosa Say)

- New York M. D. Leonard (September 6). "Abundant in one 40-acre orchard at Lyndonville; nearly every tree infested. Some larvae about 1/2 inch in length. Also common in all orchards about Hector."
- Indiana J. J. Davis (September 14). "The peach-tree borer has been the subject of a great many inquiries, partly due, no doubt, to the publicity given the paradichlorobenzene method of control. Large quantities of this insecticide will be used in Indiana this fall, at least one county buying it in ton lots. Unfortunately an eastern company has been selling considerable quantities of a "paradichlorobenzene compound," a material which we can not recommend."

LESSER PEACH TREE BORER (Aegeria pictipes G. & R.)

- New York M. D. Leonard (September 6). "Common in one 40-acre orchard at Lyndonville, mostly in old brown-rot cankers. Many larvae apparently full grown. Also common in weakened trees about Hector."
- C. R. Crosby (September 2). "Badly infested trees observed at Youngstown."
- Ohio H. A. Gossard (August 24). "Shot-hole borer is abundant in many sections of the State, affecting particularly peaches and cherries weakened by frost injury or other causes. The second-brood beetles were observed near Waterville on July 26 and August 6. Dust spraying programs executed at Waterville and Lorain have yielded satisfactory results as to insect control but at Waterville failure to control blotch and scab on apple is noted from the use of dusts of the 90-10 sulphur lead combination and also of the 12-8-90 dehydrate copper-arsenate of lead-lime mixture."
- Indiana J. J. Davis (September 14). "Shot-hole borer continues to be the subject of many inquiries."

PLUM CURCULIO (Conotrachelus nenuphar Hbst.)

- New York C. R. Crosby and assistants. The annual survey of the commercial peach crop indicates the following percentages of damage done by this insect: Orleans County, 5 per cent; Niagara County, traces; Genesee County, 2 per cent; Nassau County, 2 per cent.

RED-LEGGED LOCUST (Melanoplus femur-rubrum DeG.)

- Georgia O. I. Snapp, Bureau of Entomology (September 9). "On account of the very dry and hot weather in this locality for the past six weeks vegetation has dried up considerably and these grasshoppers have taken to the peach trees, eating off all the foliage, in many instances leaving only the midrib of the leaves. The damage was serious in several orchards as it will probably affect the fruit buds of next season's crop. In an examination made at Albany all the foliage had been devoured by these grasshoppers on about 100 trees in a 17,000-tree orchard. Every tree was severely damaged."

SILVER LEAF MITE (Phyllocoptes cornutus Banks)

Pennsylvania S. W. Frost (September 27). "The silver leaf mite is abundant in Cumberland County and a little infestation was noticed in Adams County. To my knowledge this is the first time it has been recorded from Pennsylvania."

COTTON WORM (Alabama argillacea Hübn.)

Michigan R. H. Pettit (September 15). "This insect has been fairly abundant at Provemont and Holland attacking the fruit of peaches."

CHERRY

CHERRY MAGGOT (Rhagoletis cingulata Loew)

New York C. R. Crosby and assistants. The annual survey of the commercial cherry crop indicates the following percentages of damage by this insect: Columbia County, 1 to 2 per cent; Niagara County, 40 per cent on unsprayed trees; Orleans County, 3 per cent; Genesee County, 1 per cent; Wayne County, traces.

PLUM CURCULIO (Conotrachelus nenuphar Hbst.)

New York C. R. Crosby and assistants. The annual survey of the commercial cherry crop indicates the following percentages of damage done by this insect: Orleans County, 3 per cent; Albany County, 1 per cent; Genesee County, 4 per cent.

PLUM

PLUM CURCULIO (Conotrachelus nenuphar Hbst.)

New York C. R. Crosby and assistants. The annual survey of the commercial plum crop indicates the following percentages of damage done by this insect: Wayne County, 10 per cent; Genesee County, 8 per cent; Orleans County, 5 per cent; Niagara County, 5 per cent; Nassau County, 30 per cent; Albany County, 15 per cent; Columbia County, 10 per cent.

PECAN

PECAN NUT CASE-BEARER (Acrobasis hebescella Hulst)

Mississippi R. W. Harned (September 10). "The pecan leaf case-bearer is abundant this year in southern Mississippi."

FALL WEBWORM (Hyphantria cunea Drury)

Georgia O. I. Snapp, Bureau of Entomology (September 8). "This insect is causing severe defoliation in some sections of the Albany pecan district. Apparently it is more severe on trees in the lowlands."

HICKORY NUT WEEVIL (Balaninus caryae Horn.)

Georgia O. I. Snapp, Bureau of Entomology (September 14). "This insect is doing more damage in the Myrtle section this year than last, while the damage was severe in this section last year. Most of the orchards are near woodlands containing hickory. Pecan growers in this section will fumigate with carbon disulphid for this insect."

GRAPE

GRAPE LEAFHOPPER (Erythroneura comae Say)

New York C. R. Crosby and assistants report this insect as having done very little damage in Columbia and Orleans Counties.

Indiana J. J. Davis (September 14). "The grape leafhopper is prevalent in unusual abundance in many sections of the State."

GRAPE ROOTWORM (Fidia viticida Walsh)

New York G. E. Smith. "The annual survey of the commercial grape crop indicates that this insect damaged 4 per cent of the crop in Orleans County."

GRAPE-BERRY MOTH (Polychrosis viteana Clem.)

New York G. E. Smith. "The annual survey of the commercial grape crop indicates that this insect damaged 3 per cent of the crop in Orleans County."

GRAPE LEAF SKELETONIZER (Harrisina americana Guér.)

Delaware C. O. Houghton (September 17). "Larvae of the second brood are now nearly full grown."

FRUIT-TREE LEAF-ROLLER (Archips arcyrospila Walk.)

New York L. C. Tyler. "The annual survey of the commercial grape crop indicates that this insect damaged 1 per cent of the crop in Genesee County."

GRAPE PHYLLOXERA (Phylloxera vitifoliae Fitch)

New York L. D. Greene (August 29). "Badly infested leaves from cultivated grapes were observed at Newburgh in Orange County."

PYRIFORM SCALE (Pulvinaria pyrifolia Gill.)

Florida U. C. Zeluff (September 1). "All mangoes in the vicinity of Tampa are severely infested at the present time. This insect is much more abundant than usual this year."

CRANBERRY

BLACKHEAD CRANBERRY WORM (Rhopobota naevana Hübn.)

Wisconsin S. B. Fracker (September 23). "Mr. O. G. Malde reports that more fire-worm work than usual has occurred in Wood County, the crop loss in the Mather area being serious."

ORANGE

CITRUS RUST MITE (Eriophyes oleivorus Ashm.)

Florida J. R. Watson (September 15). "Rust mite usually does very little damage during August and September. It is doing a large amount of damage, however, at the present time. Most of the damage is usually experienced in June and July."

F O R E S T A N D S H A D E T R E E I N S E C T S

G E N E R A L F E E D E R S

FALL WEBWORM (Hyphantria cunea Drury)

- Massachusetts. E. R. Farrar (September 14). "This insect is about 75 per cent as abundant as it was last year about Lincoln."
- Nebraska. M. H. Swenk (September 15). "A very unusual abundance of fall webworm in Omaha, and to only a slightly less extent about Lincoln and other eastern Nebraska cities, as well as westward across the State in the Platte Valley. Probably as many inquiries were received regarding this insect as of all other pests of the period here covered combined."
- Louisiana T. H. Jones (September 9). "Moths, apparently from the third generation of caterpillars, noticed about lights at Baton Rouge last night."

FALL WEBWORM (Hyphantria textor Harr.)

- New York E. P. Felt (September 21). "Fall webworm, Hyphantria textor Harr., has been moderately abundant though not particularly injurious in the eastern part of the State."

BAGWORM (Thyridopteryx ephemeraeformis Haw.)

- Kansas E. G. Kelly (September 22). "The bagworms have been unusually abundant this summer on evergreens, many of the trees having been defoliated."

MAPLE

TERRAPIN SCALE (Lecanium nigrofasciatum Perg.)

- New York M. D. Leonard (September 5). "Badly infested twigs and leaves covered with honeydew and sooty fungus were received from Elmira. This insect is reported as being severe in one section of the City."

WOOLLY MAPLE LEAF SCALE (Phenacoccus acericola King)

- Indiana J. J. Davis (September 14). "Woolly maple leaf scale is reported as common on maple in some sections of southern Indiana."

NORWAY MAPLE APHIS (Periphyllus lyropictus Kess.)

- New York M. D. Leonard (September 6). "Leaves of a shade tree sticky with honeydew and aphids fairly abundant at Newburgh. The leaves show some yellowing due to this insect."

ELM

ELM LEAF-BEETLE (Galerucella luteola Müll.)

New York

E. P. Felt (September 21). "R. E. Horsey reports that the elm leaf-beetle skeletonized several trees on Alexandria Street, Rochester, and by September 6 there were thousands of grubs on the leaves and trunk, probably of the second brood. Trees in the same vicinity sprayed earlier in the season were free from this pest."

BUMBLE FLOWER BEETLE (Euphoria inda L.)

Wisconsin

S. B. Fracker (September 23). "Unusual number of complaints, from various parts of the State, of these insects on elm trees."

POPLAR

POPLAR MOCHA STONE MOTH (Melalopha inclusa Hübn.)

Maryland

E. N. Cory (September 21). "This insect is decidedly more numerous than usual on willows and poplars about Berlin."

Apatela sp.

Nebraska

M. H. Swenk (September 15). "In Hitchcock County the trees in general, and especially the cottonwoods, were injured during late August by caterpillars of the genus Apatela."

ASH

CARPENTER WORM (Prionoxystus robiniae Peck)

Nebraska

M. H. Swenk (September 15). "Reports of injury by the carpenter moth were received during the period here covered, especially in relation to the injury to ash trees."

WALNUT

WALNUT CATERPILLAR (Datana integerrima G. & R.)

Kansas

E. G. Kelly (September 22). "The second brood of this insect occurred in late July and defoliated many walnut trees throughout the State. The occurrence seemed to be general."

BIRCH

BIRCH LEAF SKELETONIZER (Bucculatrix canadensisella Chamb.)

Massachusetts

A. I. Bourne (September 15). "This insect is much more abundant than usual in the eastern part of the State. It is apparently coming back into importance again after a lapse of about 10 years."

- Connecticut B. G. Walden (September 20). "More abundant than usual in the vicinity of Derby."
- New York E. P. Felt (September 21). "Has been locally abundant and somewhat injurious to birches in the northeastern part of the State, ranging from Rensselaer County north to Essex County. The insect has been so numerous as to cause a general browning of groups of birches here and there throughout the area. It was not so abundant as during the outbreak of 1901."
- Michigan R. H. Pettit (September 9). "A serious outbreak of this pest occurred in the southern part of the lower peninsula defoliating white birches."

EUROPEAN HORNET (Vespa crabro L.)

- New York E. P. Felt (September 21). "European hornet has been injuring blue birch twigs in the vicinity of New York City by girdling them and thus causing the tips to die. One tree was quite badly damaged."

CATALPA.

CATALPA SPHINX (Ceratomia catalpae Boisd.)

- Maryland E. N. Cory (August 23). "Normally abundant about Berlin."
- Ohio H. A. Gossard (August 24). "Mr. J. S. Houser reports that the aeroplane was used successfully as a means of distributing arsenate of lead upon tall trees on August 3 at Troy. A 6-acre grove of catalpas 30 feet tall badly infested with the larvae of the catalpa sphinx was sprayed in 54 seconds. At least 99 per cent of the caterpillars were destroyed."

SPRUCE

SPRUCE GALL APHID (Adelges abietis Kalt.)

- Connecticut W. E. Britton (September 20). "This insect is found in all parts of the State, wherever spruce trees are grown, and is seemingly on the increase."
- New York E. P. Felt (September 21). "Spruce gall aphids continue to attract notice by the production of galls; complaints have come from both Ulster and Herkimer Counties recently."

PINE

PINE LEAF SCALE (Chionaspis pinifoliae Fitch)

New York

M. D. Leonard (September 10). "Several shade trees about Schenectady reported as badly infested. About the middle of August young scales, apparently of this species, were abundant on an Austrian pine shoot sent in from Briarcliff Manor. No old scales could be found on this shoot, however."

PINE LEAF MINER (Paralechia pinifoliella Chamb.)

New York

M. D. Leonard (August 17). "Many trees reported to be badly infested about Briarcliff Manor."

S O U T H E R N F I E L D - C R O P I N S E C T S

COTTON

BOLL WEEVIL (Anthonomus grandis Boh.)

North

Carolina Franklin Sherman (September 23). "The principal entomological event of the past month in North Carolina has been the rapid increase of the boll weevil in territory invaded a year ago, and its early and rapid migration into new areas. The new territory invaded by it this year is already as wide as the entire new area invaded last year, and the migration season is not half over. It has been found in numbers at places 30 to 40 miles north of its limit a year ago."

Louisiana T. H. Jones (September 10). "Judging from reports, the cotton boll weevil has caused severe injury to the cotton crop in Louisiana this year."

San

Salvador J. L. Webb (Bureau of Entomology) "Specimens of the boll weevil were recently received from Mr. S. Caldron, collected from cotton during August on the island of San Salvador. Up to this time this pest was not known to occur on that island."

RED SPIDER (Tetranychus telarius L.)

North

Carolina A. C. Foster (September 1.) "Very destructive in north-central counties of this State."

COTTON WORM (Alabama argillacea Hübn.)

New York E. P. Felt (September 21). "Cotton moth has appeared in small numbers in various localities in the State, notably Albany, Utica, and Silver Creek."

Michigan R. H. Pettit (September 15). "Adults fairly abundant at Provemont and Holland."

Louisiana T. H. Jones (September 19). "All cotton fields in the vicinity of Alexandria, seen on a field trip today, have been defoliated by the larvae. Pupae and pupal cases the only stages now noted. Was told by the pink bollworm inspectors of the Federal Horticultural Board that they had noted fields defoliated from Opelousas to Alexandria in a recent trip over the road."

PINK BOLLWORM (Pectinophora gossypiella Saund.)

Porto Rico G. N. Wolcott (September 14). "I am enclosing copy of some recommendations regarding Pink Bollworm in cotton, which has recently been found in Porto Rico."

-2547
GREENHOUSE AND ORNAMENTAL PLANTS

AZALEA

CORNUS BORER (Oberea tripunctata Swed.)

New York E. P. Felt (September 21). "Mr. R. E. Horsey reports that this insect has been working in the twigs of azalea beds in the Department of Parks Rochester, though it has not caused much injury."

EUONYMUS

EUONYMUS SCALE (Chionaspis euonymi Comst.)

New York M. D. Leonard (September 6). "Specimens of this plant from Mt. Kisco were sent in to this office. These were badly infested."

CANNA

SADDLE-BACK CATERPILLAR (Sibine stimulea Clem.)

Delaware C. O. Houghton (September 17). "This insect is now attacking cannas about Newark."

COLEUS

CITRUS MEALYBUG (Pseudococcus citri Risso)

New York M. D. Leonard (August 29). "Plants in a garden at Ithaca badly infested."

District of Columbia A. V. Swarthout, Bureau of Markets (September 30). "Causing entire plantings to die in the vicinity of Cleveland Park."

CHRYSANTHEMUM

CHRYSANTHEMUM GALL MIDGE (Diarthronomyia hypogaea F. Loew)

New York L. F. Strickland (September 21). "Chrysanthemum midge has become established in considerable numbers in a Lockport greenhouse."

BARBERRY

Omphalocera dentosa Grote

Connecticut W. E. Britton (September 20). "This insect was first observed in 1908 and was abundant in 1911. I have never seen it since until this year, when it was observed in New Haven in a Japanese barberry hedge."

HAWTHORN

WOOLLY APPLE APHIS (Eriosoma lanigerum Hausm.)

New York E. P. Felt (September 21). "Mr. R. E. Horsey reports that these insects are a serious pest on the branches and twigs of American hawthorn in Highland Park, Rochester. The cheapest way to control this insect is by using clear water in a power sprayer."

RED SPIDER (Tetranychus sp.)

New York E. P. Felt (September 21). "Mr. R. E. Horsey reports that red spiders were abundant on American hawthorn in Genesee Valley Park, Rochester."

ROSE

ROSE SCALE (Aulacaspis rosae Bouche)

Delaware C. O. Houghton (September 15). "Have found some plants heavily infested with this species this year about Newark."

TWELVE-SPOTTED CUCUMBER BEETLE (Diabrotica 12-punctata Oliv.)

New York M. D. Leonard (September 7). "Beetles doing considerable injury to rose petals in a private garden containing a valuable collection of roses."

INSECTS ATTACKING MAN AND DOMESTIC ANIMALS

MAN

GARDEN SLUG (Agriolimax agrestis L.)

Indiana J. J. Davis (September 14). "Large garden slugs have been numerous in cellars, cisterns, etc. No injury to crops has been reported."

BEDBUG (Cimex lectularius L.)

Indiana J. J. Davis (September 14). "Numerous calls for the control of bedbugs in dwellings and chicken houses have been received."

ANTS

Indiana J. J. Davis (September 14). "Ants in houses and lawns continue to be a source of trouble and annoyance."

IO MOTH (Automeris io Fab.)

New York M. D. Leonard (September 13). "Reports have been received from Long Island of bean pickers getting severe rashes on the hands from touching these larvae."

SHEEP AND GOATS

NOSE FLY (Oestrus ovis L.)

California W. D. Pierce (August 29). "The goat bot is very abundant in the heads of goats on the ocean shore of San Mateo County, and many goats are dying."

BEES

WAX MOTH (Galleria mellonella L.)

Delaware C. O. Houghton. "This species is quite common here and a serious pest of weak colonies."

STORED-PRODUCT INSECTS

ANGOUMOIS GRAIN MOTH (Sitotroga cerealella Oliv.)

Indiana J. J. Davis (September 14). "The Angoumois grain moth is frequently reported as a serious pest."

MEDITERRANEAN FLOUR MOTH (Ephestia kuehniella Zell.)

Indiana J. J. Davis (September 14). "The Mediterranean flour moth seems to be a very serious pest in many of the flour mills of the State."

FOREIGN GRAIN BEETLE (Cathartus advena Waltl.)

Nebraska M. H. Swenk (September 16). "There were an unusual number of complaints of weevils in grain during the period here covered (August 15 to September 15). Most of the complaints related to the new wheat crop. Some of the complaints related to stored oats and shelled corn. Complaints of this sort were received from all parts of the State."

Ohio H. A. Gossard. "An unusual number of reports of injury from the several grain weevils have been received during the past month."

GRANARY WEEVIL (Calendra granaria L.)

Nebraska M. H. Swenk (September 15). "This weevil is also causing considerable trouble throughout the state."

YELLOW MEALWORM (Tenebrio molitor L.)

Nebraska M. H. Swenk (September 15). "This insect is associated with the other granary pests previously reported."

GADELLID (Tenebroides mauritanicus L.)

Nebraska M. H. Swenk (September 15). "Also associated with the other granary insects."

BOOK-LOUSE (Atropos divinatoria Müll.)

New York C. R. Crosby (September 2). "This insect is infesting the paper linings of a thousand barrels of milk sugar in Chenango County."

BEAN WEEVIL (Myiabris obtectus Say)

- Massachu- A. I. Bourne (September 20). "From September 15 to 20 complaints are
setts beginning to be received from various parts of the State relative to
the appearance of these beetles in this year's harvest."
- Indiana J. J. Davis (September 15). "The usual frequent inquiries have been
received on weevils in cowpeas, beans, wheat, etc."
- Michigan R. H. Pettit. "These insects seem to be more numerous than usual all
over the State this year."

